Sept. 25, 1934. O. KRELL, JR 1,974,820

APPLIANCE FOR TREATMENT BY SUN RAYS

Filed Nov. 5, 1931

Fig. 1

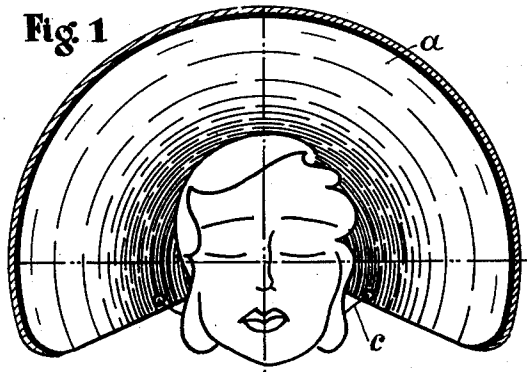


Fig. 2

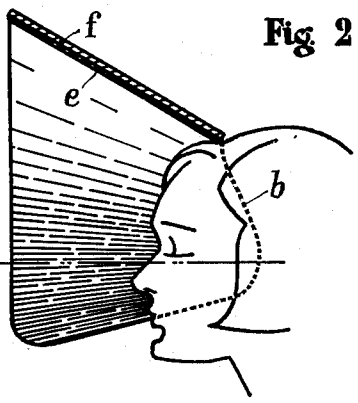


Fig. 3

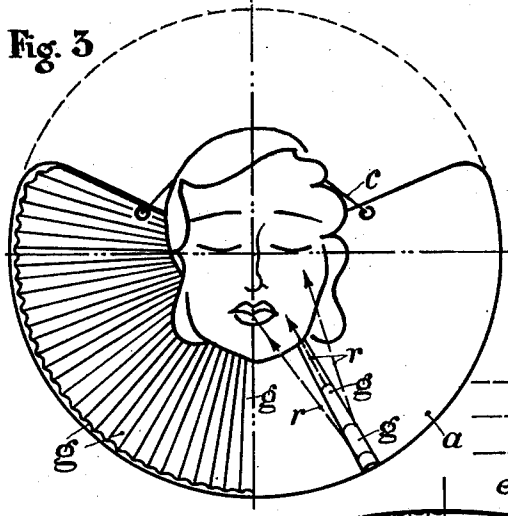


Fig. 4

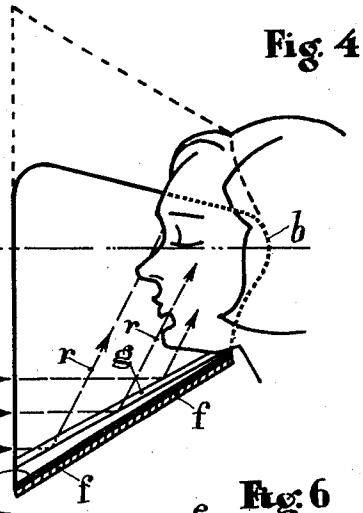


Fig. 6



Fig. 5

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Patented Sept. 25, 1934 1,974,820

UNITED STATES PATENT OFFICE

1,974,820

APPLIANCE FOR TREATMENT BY SUN RAYS

Otto Krell, Jr., Berlin-Dahlem, Germany

Application November 5, 1931, Serial No. 573,139
In Germany November 21, 1930

1 Claim. (Cl. 174—177)

My invention relates to a cosmetic appliance, and more specifically to an appliance for exposing parts of the human body, particularly the face, to the rays of the sun.

Plane mirrors and reflecting surfaces for the purpose of bringing about a better utilization of the light in therapeutic radiation treatments are already known. The ratio of the output to the expenditure in these appliances is, however, too unfavorable, their application too inconvenient and the saving in time too small to make them available for cosmetic purposes.

My invention relates to an appliance constructed particularly for cosmetic purposes. It consists mainly of a reflector, which in spite of its extraordinary simplicity in construction and use results in such a powerful increase of the effect of the sun's rays so that, as practical experience has shown, exposures of only about fifteen minutes duration bring about a distinct freshening up of the color of the face, and a bronzed or sunburnt complexion can be attained in a very short time.

This effect is attained by the total mirror surface of the reflector being utilized for the object in view. Although the reflector described is a plane mirror in its original state, it is actually employed as concave mirror. This is rendered possible by constructing the reflector of an elastic flexible material, such as polished sheet metal. This constitutes the main characteristic of my improved reflector. The user is thus in a position easily to adapt the concentration capacity of the reflector to the various special purposes.

To render the reflector particularly suitable for exposing the face to the sun's rays, it may be given the shape shown in the drawing affixed to my specification and forming part thereof, which when the reflector is in use leaves a kind of a recess for introducing the face.

In the drawing is:—

Fig. 1, a front-elevation of my new appliance in actual use, as applied to the upper part of the face.

Fig. 2, a side-elevation of this appliance,

Fig. 3, a front-elevation of my new appliance as applied to the lower part of the face, and provided with corrugations or grooves,

Fig. 4, a side-elevation of this appliance,

Fig. 5, an elevation of the flattened out appliance, and

Fig. 6, a detail.

Referring to the drawing, *a* is the reflector, *b* the recess for introducing the face, and *c* the means for fixing the reflector to the head, such as tapes, rubber bands, steel clips or the like, *g* are embossed corrugations or grooves adapted to disperse the light, and *r* the reflected rays of light. For certain purposes it may be of advantage to provide the reflector with a layer of an optical filtering material in order that, for instance, preferably short wave rays are reflected, although it has, as a rule, not been found a disadvantage if simultaneously with the strengthening of the ultra-violet rays a corresponding increase of the yellow and red rays takes place, and thus a sometimes considerable development of heat, since this attendant phenomenon has proved a very effective automatic protection against burning or blistering, in so far as the harmless subjective irritation prevents objective injuries.

The uniform distribution of the reflected rays over the face, for instance, can be attained by the reflector or the face or both of them being slightly moved about during the exposure. To assist this in itself sufficient equalization by the construction of the reflector, the reflector may be provided with embossed spreading elements or faces, which preferably consists of radial corrugations or grooves which have a light diffusing action without adversely affecting the efficiency of the reflector.

Owing to its low weight the reflector may easily be carried about. By employing suitable materials my improved radiation appliance may be made so thin that it could be rolled up into a convenient roll. A very durable construction of the reflector results if upon a flexible or elastic foundation adapted to be rolled up, of, for instance, leather, artificial leather, cellon or the like the reflecting material or material with a reflecting layer is mounted in fan-like individual parts, so that the foundation forms the connection of the separate or hinged parts of the mirror. For a cheaper design construction a reflector is more suitable which is foldable or collapsible or may be built up of a number of separate parts.

The reflector may have both sides provided with a reflecting layer or surface, both surfaces or layers having different reflecting properties.

The flexible reflector may on the back be provided with a layer of cloth, silk, felt, leather or the like which protects the reflecting surface when the reflector is rolled up.

It will be understood, that changes or modifications may be made in my cosmetic radiator without departing from the spirit of my invention. It may thus consist of a single piece of elastic flexible material for treating the upper and the lower portion of the face simultaneously.

I claim as my invention:

Appliance adapted to be applied to a portion of the human body for the treatment of the latter with sun rays, comprising a hollow conical reflector open along a generatrix and made from a sheet of flexible material having a polished reflecting surface on one side thereof, the flexibility being such that the reflector may be rolled up and bent into the desired shape while applied to the human body, and said reflector being formed at the side of the apex of the cone with a cut-out portion adapted to the shape of the part of the human body to which the appliance is to be applied.

OTTO KRELL, JR.